REMARKS

Favorable consideration of this application is respectfully requested.

Claims 1-23 are currently active in this case.

In the outstanding Official Action Claims 1, 8, 13, and 17 were objected to; Claims 1-3, and 17-19 were rejected under 35 U.S.C. §102(b) over *Ginetti* (U.S. Pat No. 6,622,291); and Claims 4-16, and 20-23 were rejected under 35 U.S.C. §103(a) over *Ginetti* in view of *Groeneveld et al.* (U.S. Pat No. 6,230,304, hereinafter *Groeneveld*).

Applicants respectfully traverse the objection to Claims 1, 8, 13, and 17 as to the meaning of the recitation of "cores" and "shells." Applicants respectfully submit that a core is logic bounded by registers, and a shell corresponds to logic in a module between a core and the pins of the module. Applicants respectfully note Applicants original specification, page 8, lines 16-18 in support of this definition. Accordingly, Applicants respectfully request that the objection be withdrawn.

Applicant's respectfully traverse the rejection of Claim 1 under 35 USC 102(b) as being anticipated by *Ginetti*. Claim 1 recites:

> ***A method for synthesizing an integrated circuit design, the method comprising:***
> ***performing physical optimization of block and wire placement, before performing logic synthesis;***
> ***partitioning the blocks into cores and shells;***
> ***synthesizing the shells and cores; and***
> ***recombining the cores and shells into blocks.***

However, *Ginetti* fails to teach or suggest the same subject matter.

Applicants respectfully note that *Ginetti* is a novel approach for physical budgeting during RTL floorplanning. *Ginetti* discloses initializing timing; performing physical budgeting, partitioning into blocks, and budgeting time to each block. However, *Ginetti's* disclosed processes vary significantly from the claimed invention.

Applicants respectfully traverse the assertion in the outstanding Office Action that equates *Ginetti*'s partitioning into blocks as being equivalent to Applicants' partitioning blocks into shells and cores. As a preliminary matter, Applicants respectfully note that partitioning into blocks and partitioning blocks are entirely different operations.

More importantly, Applicants shells and cores define specific boundaries within a circuit that are partitioned, synthesized, and then recombined. As noted above, a core is logic bounded by registers, and a shell corresponds to logic in a module between a core and the pins of the module. Applicants admit that *Ginetti* teaches partitioning a circuit into blocks of gates. However, *Ginetti*'s partition fails to teach or suggest partitioning shells or cores of a block. In contrast, Claim 1 specifically recites ***"partitioning the blocks into cores and shells."***

Applicants also respectfully traverse the assertion in the outstanding Office Action that equates Applicants claimed "recombining the cores and shells into blocks," to any part of *Ginetti*'s disclosed processes. In particular, Applicants respectfully note that Applicants recombining step recombines the cores and shells that were previously partitioned. That *Ginetti* may provide some placement (e.g., insertion of buffers), modification of RTL, or otherwise make any loop for optimizations, does not fairly teach or suggest recombining the cores and shells of the partitioned block.

Therefore, since *Ginetti* does not teach or suggest partitioning of blocks into shells and cores, Applicants respectfully submit that *Ginetti* fails to teach or suggest subject matter specifically claimed in claim 1. Further, any ancillary or follow-on step with the shells and/or cores (e.g., recombining) are similarly absent from *Ginetti's* disclosure. Accordingly, Applicants respectfully submit that Claim 1 is patentable over *Ginetti*.

Applicants respectfully note that each of Claims 8 and 17 include ***"partitioning the blocks into cores and shells,"*** and Claim 13 includes ***"partitioning each block into a core and a shell,"*** and each claim also including a corresponding recombining step. Accordingly, Applicants respectfully submit that Claims 8, 13, and 17 are also patentable. Based on the patentability of independent Claims 1, 8, 13, and 17, Applicants further respectfully submit that dependent Claims 2-7, 9-12, 14-16, and 18-23 are also patentable.

Consequently, no further issues are believed to be outstanding, and it is respectfully submitted that this case is in condition for allowance. An early and favorable action is respectfully requested.

Respectfully submitted,
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